

BookletChartTM

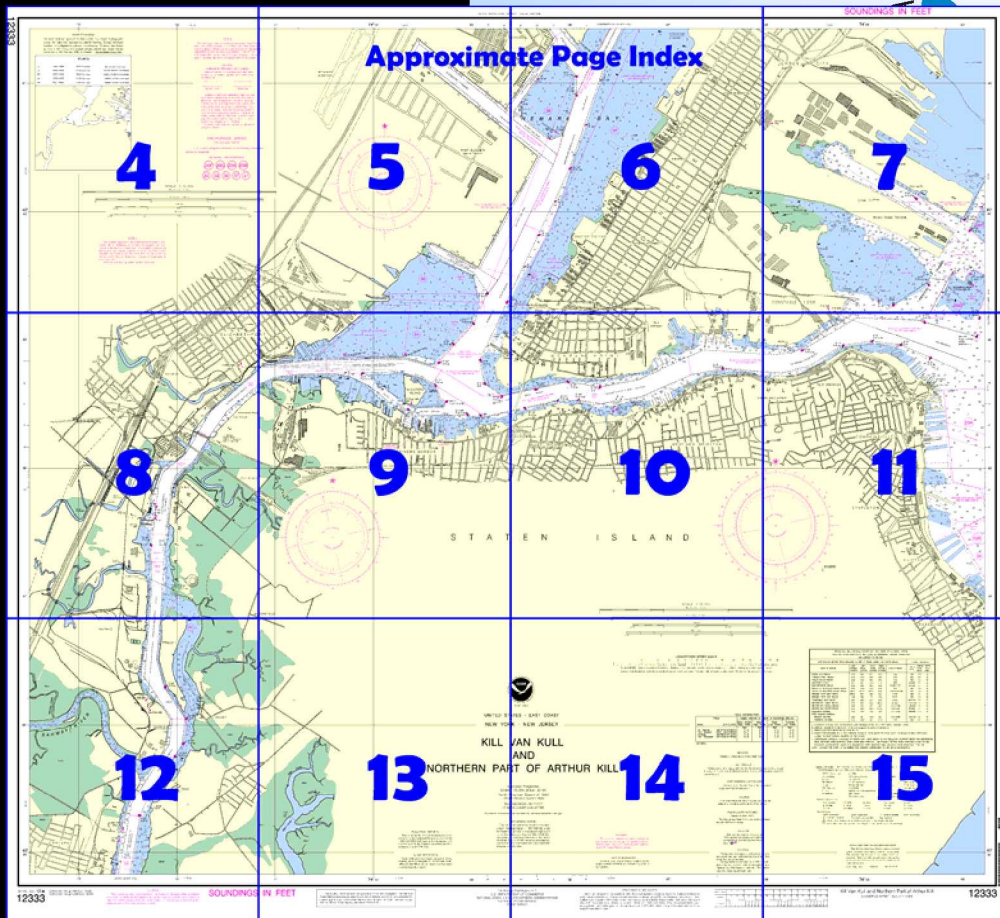
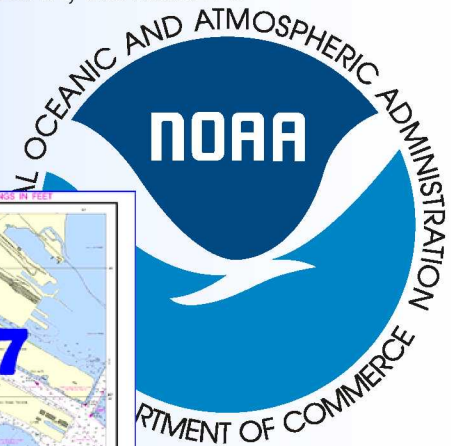
Kill Van Kull and Northern Part of Arthur Kill

(NOAA Chart 12333)



A reduced scale NOAA nautical chart for small boaters. When possible, use the full size NOAA chart for navigation.

- ✓ Complete, reduced scale nautical chart
- ✓ Print at home for free
- ✓ Convenient size
- ✓ Up to date with all Notices to Mariners
- ✓ United States Coast Pilot excerpts
- ✓ Compiled by NOAA, the nation's chartmaker.



Home Edition (not for sale)



What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.



[Coast Pilot 2, Chapter 11 excerpts]

(283) **Arthur Kill** is the narrow body of water separating Staten Island from New Jersey. The cities of Perth Amboy, Tottenville, Elizabeth, many large factories, and oil refineries and storage facilities are on its shores. Northern Arthur Kill and Kill Van Kull are the major channels for bulk, containerized, and petroleum cargo in New York Harbor.

(284) Federal project depth in Arthur Kill is 35 feet.

(285) Numerous sunken and visible wrecks are adjacent to both sides of the channel in Arthur Kill; caution is advised.

(286) A liquefied petroleum gas (LPG) facility is on the west side of Arthur Kill immediately south of **Morses Creek**. A moving **safety zone** has been established around loaded LPG vessels transiting between

Scotland Lighted Horn Buoy S at the entrance to Sandy Hook Channel and the LPG facility.

(288) The mean range of tide in Arthur Kill is about 5 feet. Throughout Arthur Kill the flood sets from Raritan Bay to Newark Bay and the ebb in reverse direction. Velocities of current vary with the location from about 1 to 1.5 knots.

(289) In October 1991, tidal currents in Arthur Kill were reported to deviate significantly from official predictions published by the National Ocean Service. Mariners should exercise caution and discretion in the use of published tidal current predictions.

(300) **Rahway River** enters Arthur Kill from westward, about 7.2 miles above Ward Point, and extends westward for about 4.5 miles to the town of **Rahway**. It is used only by small craft. In May 1981, a reported depth of 5 feet could be taken to Lamberts Wharf about 2.1 miles above the mouth and about 0.5 mile above the New Jersey Turnpike bridge.

(301) Name or location, type of span, distance above mouth, and clearances of the bridges over Rahway River are as follows: East Rahway, bascule, 1.7 miles, 6 feet; Linden and Carteret, fixed, 1.8 miles, 36 feet; Lawrence Street, fixed, 3.8 miles, 6 feet; U.S. Route 1/9, fixed, 3.9 miles, 23 feet; Milton Avenue, fixed 42-foot span, 4.2 miles, 4 feet; Monroe Avenue, fixed 30-foot span, 4.4 miles, 7 feet.

(303) The **Goethals Bridge**, 10 miles above Ward Point, has a fixed span with a clearance of 137 feet over Arthur Kill just southward of Elizabethport. The railroad bridge, 200 yards above Goethals Bridge, has a vertical lift span with a clearance of 31 feet down and 135 feet up. The bridgetender at the railroad bridge monitors VHF-FM channel 13; call sign KXS-237.

(304) **Elizabethport**, about 11 miles above Ward Point, is the eastern part of the city of **Elizabeth**. It is at the northern end of Arthur Kill at its junction with Newark Bay.

(305) Most of the wharves along the Elizabeth waterfront are of the bulkhead-marginal type. Depths alongside range from 3 to 32 feet. Waterborne commerce at these wharves is in petroleum, sand and gravel, chemicals and petrochemicals, and vegetable and animal oils.

(306) **Elizabeth River** enters Arthur Kill from westward at Elizabethport. The overhead power cable just above the entrance has a clearance of 59 feet. South Front Street Bridge, just above the mouth of the river, has a bascule span with a clearance of 3 feet; South First Street Bridge, 0.5 mile above the mouth has a bascule span with a clearance of 5 feet; and Elizabethport railroad bridge, 0.8 mile above the mouth, has a bascule span with a clearance of 14 feet. The bridges above the railroad bridge have a least clearance of 3 feet.

(307) **Kill Van Kull** separates the southern shore of the city of Bayonne from Staten Island and connects the Upper Bay of New York Harbor with Newark Bay and Arthur Kill. Kill Van Kull is a major channel for petroleum and bulk cargo in New York Harbor, and has extensive through traffic and large factories on its shores.

(308) A Federal project provides for a 35-foot dredged channel leading through Kill Van Kull and north of **Shooters Island** to Arthur Kill. The dredged channel south of Shooters Island has a project depth of 30 feet.


(309) Shoals, obstructions, and numerous wrecks are along both sides of the dredged channel in Kill Van Kull. Numerous sunken and visible wrecks are in the channel southward of Shooters Island; caution is advised. Kill Van Kull channel, between Newark Bay and the Upper Bay of New York Harbor, is a **regulated navigation area**.

(311) The mean range of tide in Kill Van Kull is about 4.5 feet. The flood current sets westward and the ebb eastward. In the bight on the south side of the channel between West New Brighton and Port Richmond there is more or less of an eddy when the current is at strength.

(312) In October 1991, tidal currents in Kill Van Kull were reported to deviate significantly from official predictions published by the National Ocean Service. Mariners should exercise caution and discretion in the use of published tidal current predictions.

Table of Selected Chart Notes

CAUTION

Mariners are warned to stay clear of the protective riprap surrounding navigational light structures shown thus: 

Corrected through NM Nov. 21/09
Corrected through LNM Nov. 17/09

HEIGHTS

Heights in feet above Mean High Water.

Mercator Projection
Scale 1:15,000 at Lat. 40°35'
North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET
AT MEAN LOWER LOW WATER

AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility. If telephone communication is impossible (33 CFR 153).

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.372" northward and 1.483" eastward to agree with this chart.

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

New York, NY KWO-35 162.550 MHz

CAUTION



Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details see U.S. Coast Guard Light List.

CAUTION

SUBMARINE PIPELINES AND CABLES

Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:

Pipeline Area **Cable Area**

Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.

Covered wells may be marked by lighted or unlighted buoys.

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 2 for important supplemental information.

PLANE COORDINATE GRID
(based on NAD 1927)

The New Jersey State Grid is indicated by dotted ticks at 5,000 foot intervals.

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 2. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 1st Coast Guard District in Boston, MA or at the Office of the District Engineer, Corps of Engineers in New York, NY.

Refer to charted regulation section numbers.

Additional information can be obtained at nauticalcharts.noaa.gov.

SOURCE DIAGRAM

The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

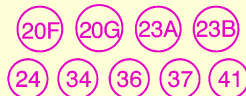
AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers and U.S. Coast Guard.

ANCHORAGE AREAS
110.155 (see note A)

Limits and assigned numbers of anchorage areas are shown in magenta.

GENERAL ANCHORAGES



CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at nauticalcharts.noaa.gov.

This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

TIDAL INFORMATION				
PLACE	Height referred to datum of soundings (MLLW)			
		Mean Higher High Water	Mean High Water	Mean Low Water
NAME	(LAT/LONG)			
St. George	(40°39'N/74°04'W)	feet	feet	feet
Port Newark	(40°41'N/74°08'W)	5.0	4.7	0.2
Chelsea	(40°36'N/74°12'W)	5.7	5.3	0.2
Port Elizabeth	(40°40'N/74°08'W)	5.6	5.2	0.2
		5.6	5.2	0.2

Dashes (- - -) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, tide predictions, and tidal current predictions are available on the Internet from <http://tidesandcurrents.noaa.gov>. (Sep 2009)

ABBREVIATIONS (For complete list of Symbols and Abbreviations, see Chart No. 1.)

Aids to Navigation (lights are white unless otherwise indicated):

AERO aeronautical	G green	N run	R TR radio tower
Al alternating	IQ interrupted quick	OBSC obscured	Rot rotating
B black	Isb isophase	OC occulting	s seconds
Bn beacon	LT Lighthouse	Or orange	SEC sector
C can	M nautical mile	Osc oscillating	St M statute miles
DIA diaphone	m minutes	Q quick	VQ very quick
F fixed	MICRO TR microwave tower	R red	W white
Fl flashing	Mkr marker	Ra Ref radar reflector	WHIS whistle
	Mo morse code	R Bn radiobeacon	Y yellow

Bottom characteristics:

Blds boulders	Co coral	gy gray	Oys oysters	so soft
bk broken	G gravel	h hard	Rk rock	Sh shells
Cy clay	Grs grass	M mud	S sand	sy sticky

Miscellaneous:

AUTH authorized	Obstr obstruction	PD position doubtful	Subm submerged
ED existence doubtful	PA position approximate	Rep reported	

⚓ Wreck, rock, obstruction, or shoal swept clear to the depth indicated.
(2) Rocks that cover and uncover, with heights in feet above datum of soundings.

PRINT-ON-DEMAND CHARTS

NOAA and its partner, OceanGrafix, offer this chart updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 5-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at 1-800-584-4683, <http://NauticalCharts.gov>, help@NauticalCharts.gov, or OceanGrafix at 1-877-56CHART, <http://OceanGrafix.com>, or help@OceanGrafix.com.

13'

12'

2 130 000

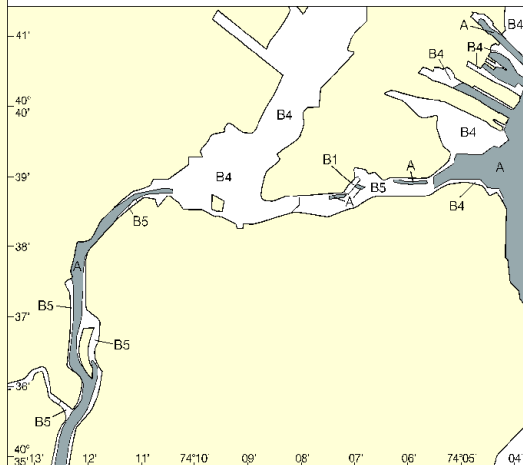
11'

SOURCE DIAGRAM

The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, *United States Coast Pilot*.

SOURCE

A	1990-2007	NOS Surveys	full bottom coverage
B1	1990	NOS Surveys	partial bottom coverage
B4	1900-1939	NOS Surveys	partial bottom coverage
B5	Pre - 1900	NOS Surveys	partial bottom coverage



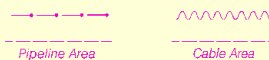
NOTE B

The U.S. Coast Guard operates a mandatory Vessel Traffic Services (VTS) system in the New York Bay and surrounding areas. Vessel operating procedures and designated radiotelephone frequencies are published in 33 CFR 161, the U.S. Coast Pilot, and/or the VTS User's Manual. The entire area of the chart falls within the Vessel Traffic Services (VTS) system.

CAUTION

SUBMARINE PIPELINES AND CABLES

Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:



Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.

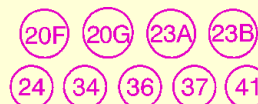
Covered wells may be marked by lighted or unlighted buoys.

ANCHORAGE AREAS

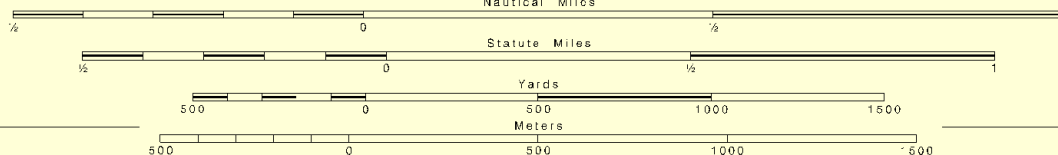
110.155 (see note A)

Limits and assigned numbers of anchorage areas are shown in magenta.

GENERAL ANCHORAGES



SCALE 1:15,000
Nautical Miles



NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 2. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 1st Coast Guard District in Boston, MA or at the Office of the District Engineer, Corps of Engineers in New York, NY. Refer to charted regulation section numbers.

PORT ELIZABETH SOUTH AND PORT NEWARK CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JUN 2009
AND SURVEYS TO MAR 2009

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)				PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)
PORT ELIZABETH SOUTH REACH	42.9	44.1	44.5	2-09	140-290	0.41
PORT NEWARK : PIERHEAD REACH	32.1	30.6	29.0	3-09	300-750	0.65

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Joins page 8

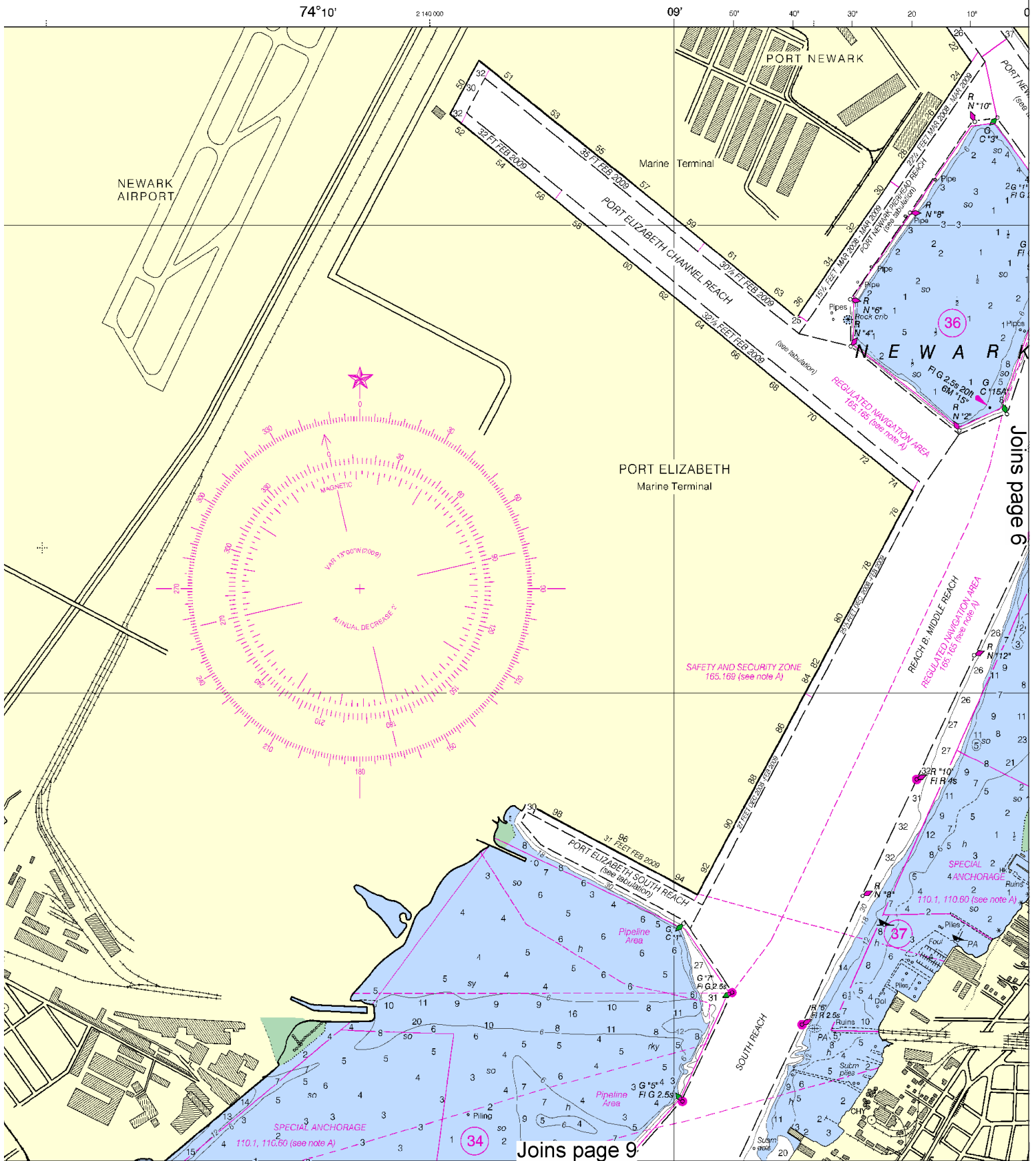
ELIZABETHPORT

Printed at reduced scale.

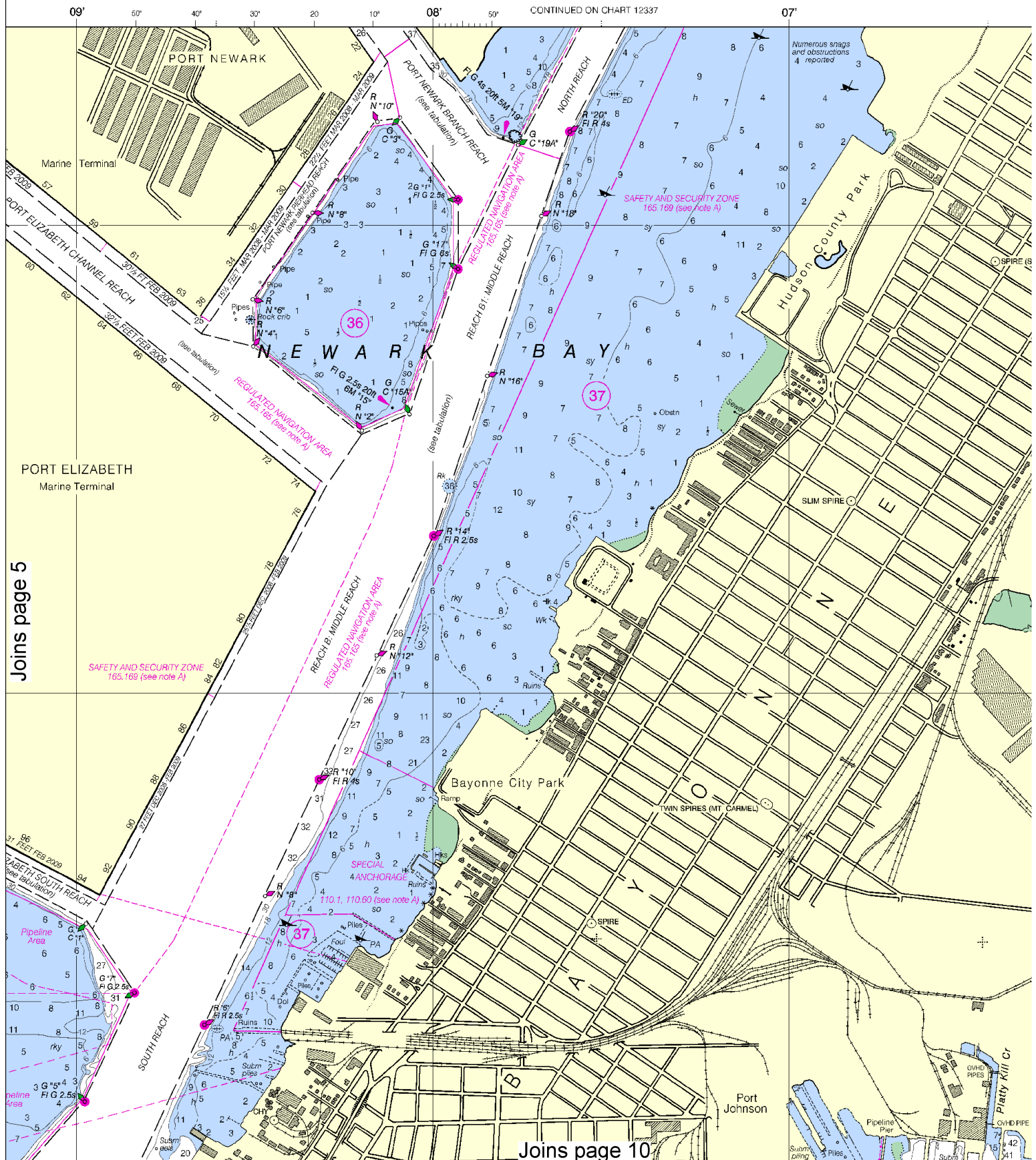
SCALE 1:15,000
Nautical Miles

See Note on page 5.





This BookletChart was reduced to 75% of the original chart scale.
The new scale is 1:20000. Barscales have also been reduced and
are accurate when used to measure distances in this BookletChart.



Joins page 5

Joins page 10

6



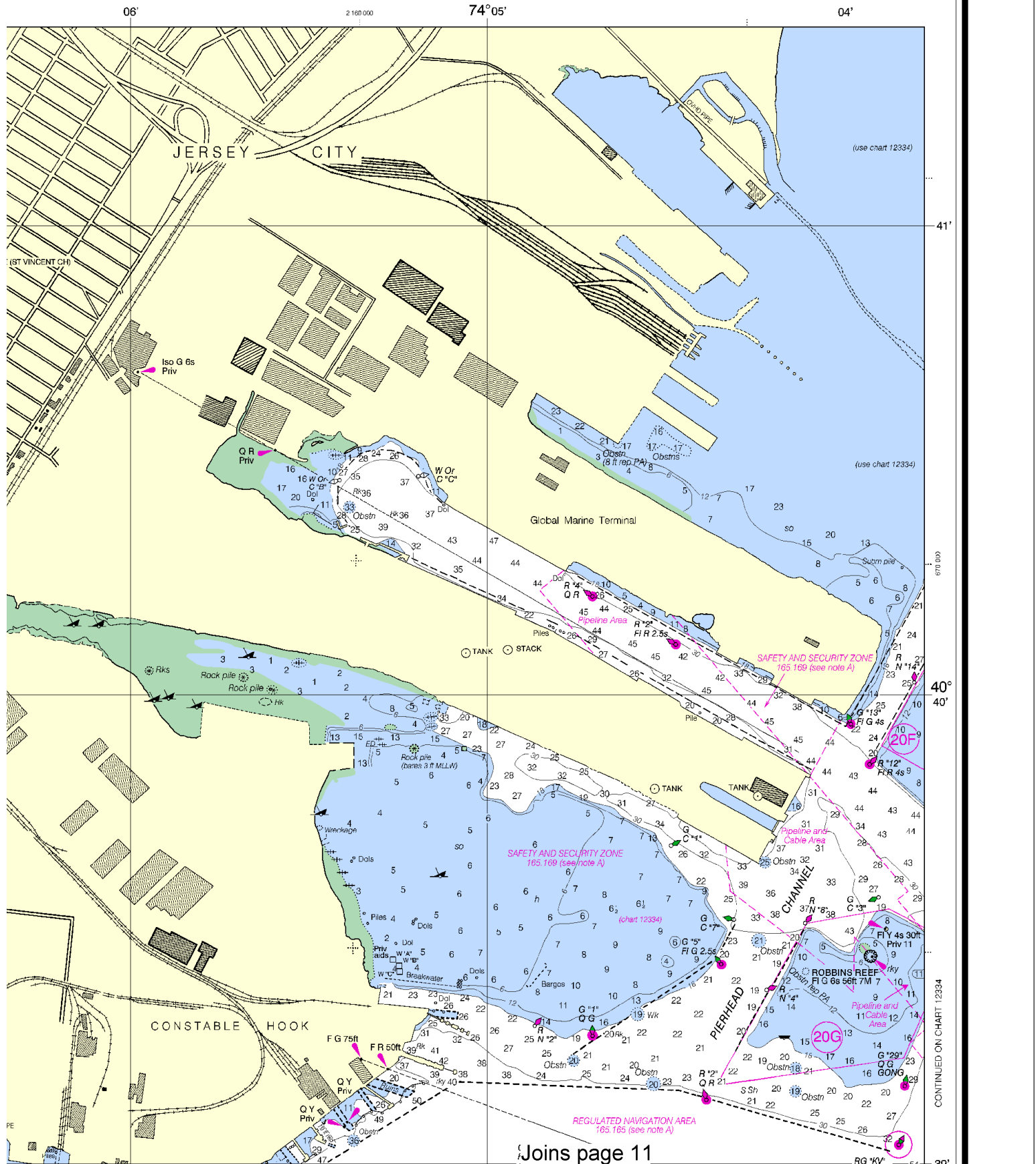
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SCALE 1:15,000
Nautical Miles

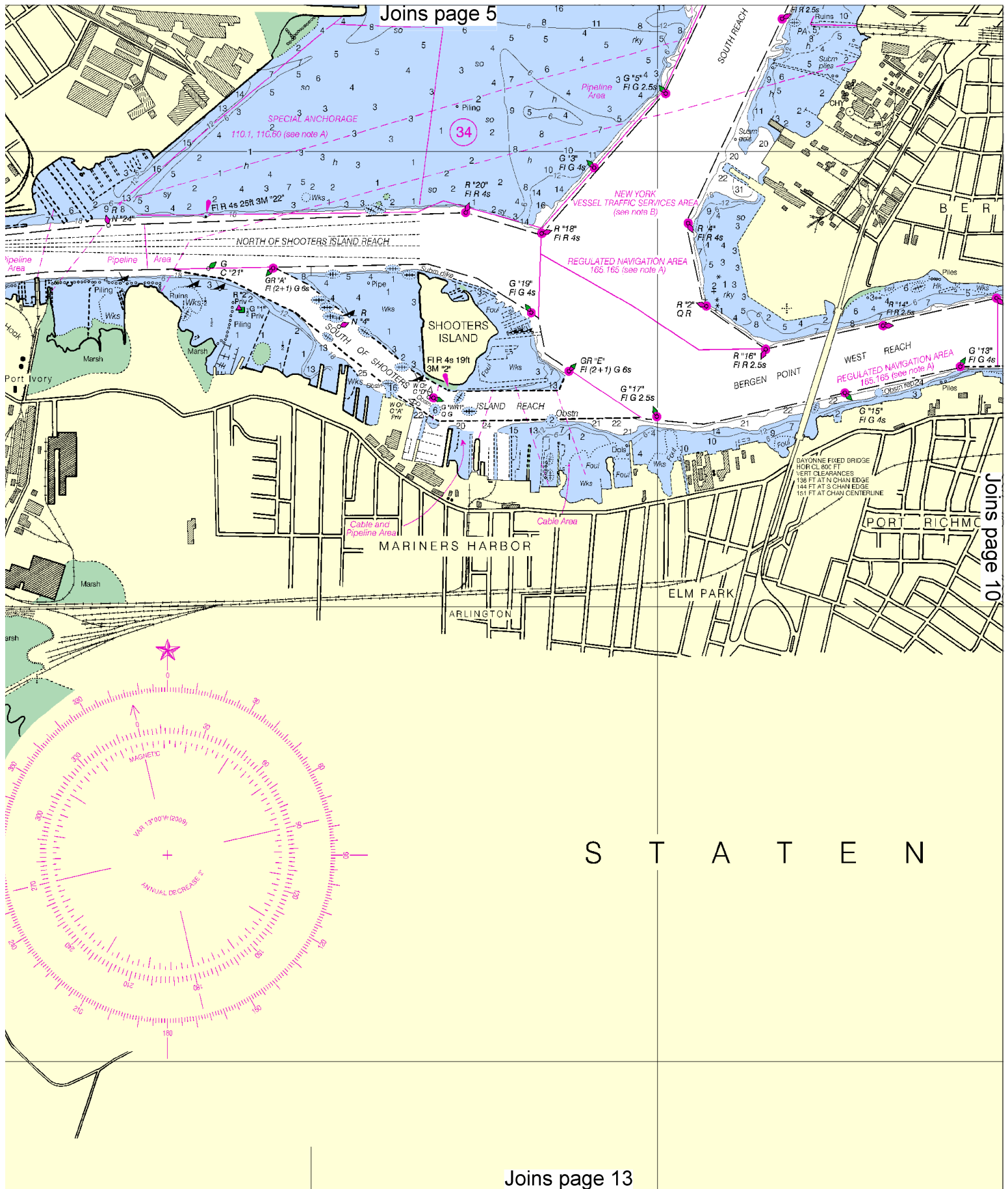
See Note on page 5.



SOUNDINGS IN FEET



This BookletChart has been updated with: Coast Guard Local Notice To Mariners: 0710 2/16/2010,
 NGA Weekly Notice to Mariners: 0910 2/27/2010,
 Canadian Coast Guard Notice to Mariners: 1209 12/25/2009.





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Joins page 14

10



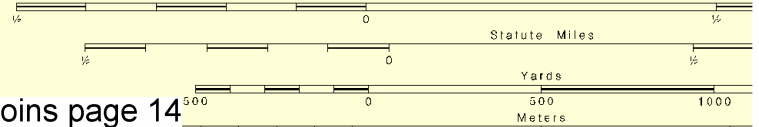
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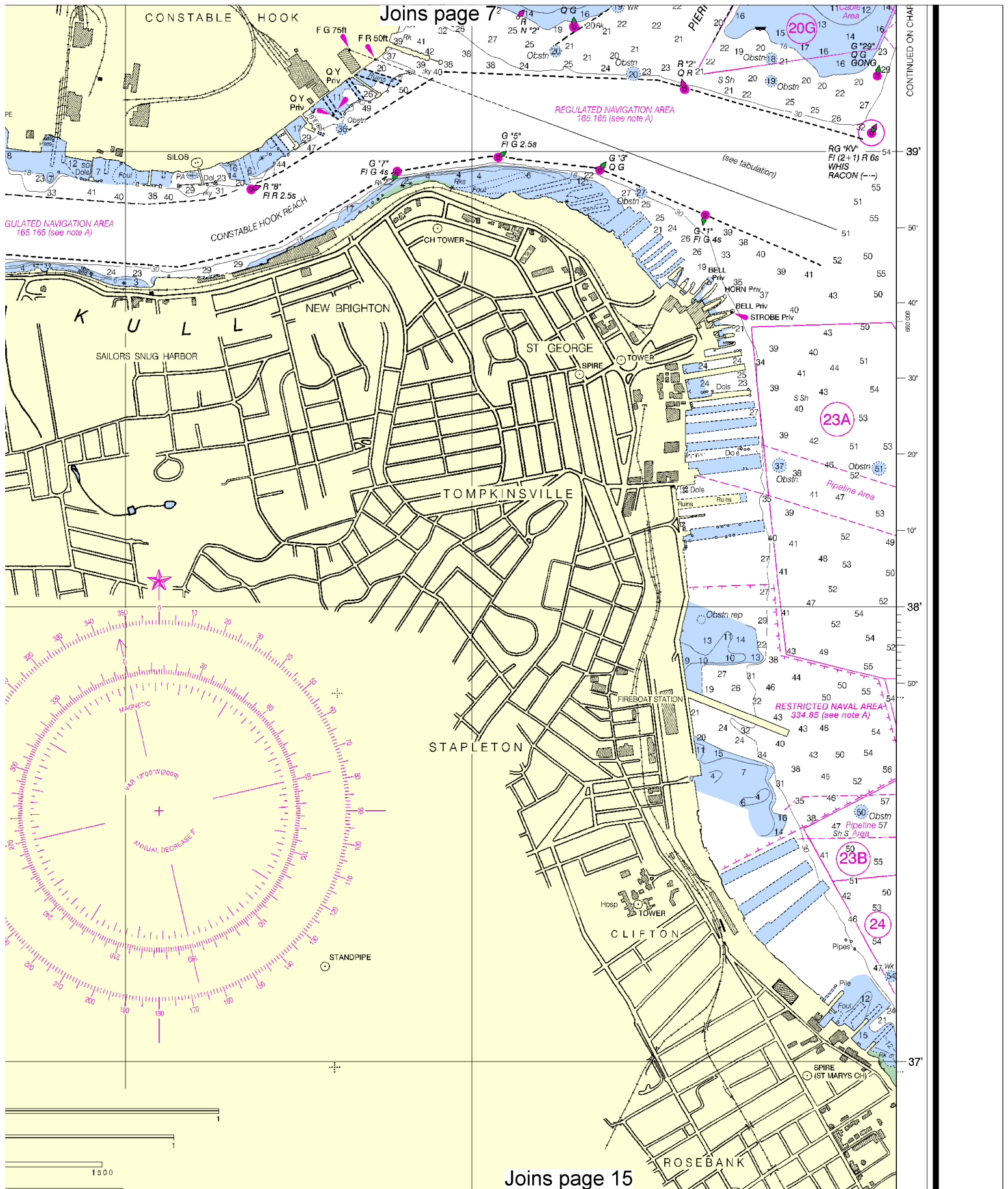
SCALE 1:15,000
Nautical Miles

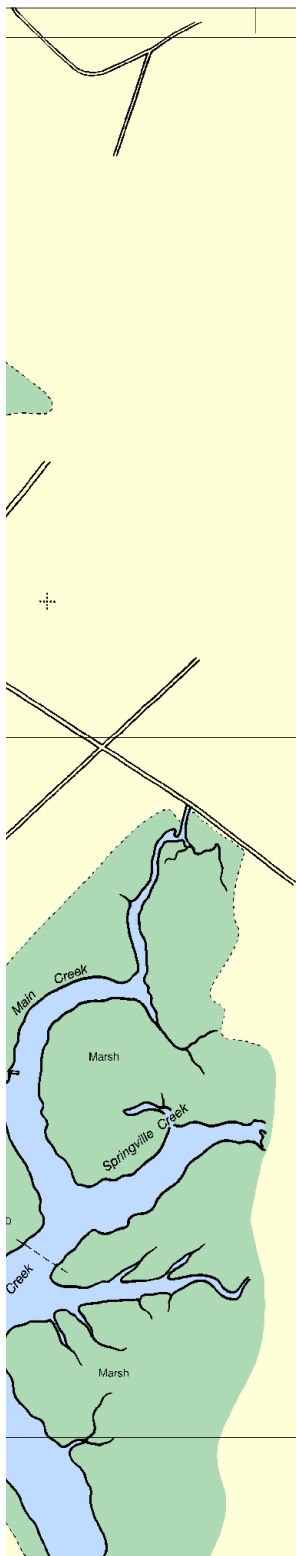
See Note on page 5.



SCALE 1:15,000
Nautical Miles







THE NATION'S CHARTMAKER SINCE 1807

UNITED STATES - EAST COAST
NEW YORK - NEW JERSEY

KILL VAN KULL AND NORTHERN PART OF ARTI

Joins page 14

Mercator Projection
Scale 1:15,000 at Lat. 40°35'

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET
AT MEAN LOWER LOW WATER

Additional information can be obtained at nauticalcharts.noaa.gov.

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.372" northward and 1.483" eastward to agree with this chart.

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

74°10'

2 140 000

09'

50

40'

30'

20'

10'

0

ET

This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

Published at Washington, D.C.
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY



THE NATION'S CHARTMAKER SINCE 1807

UNITED STATES - EAST COAST
NEW YORK - NEW JERSEY

KILL VAN KULL AND SOUTHERN PART OF ARTHUR KILL

Mercator Projection
Scale 1:15,000 at Lat. 40°35'

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET
AT MEAN LOWER LOW WATER

Additional information can be obtained at nauticalcharts.noaa.gov.

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.372" northward and 1.483" eastward to agree with this chart.

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

PLACE	
NAME	
St. George	(4)
Port Newark	(4)
Chelsea	(4)
Port Elizabeth	(4)

Dashes (---) located in datum columns indicate tide predictions, and tidal current predictions are (Sep 2009)

Heights in feet

Hydrography and topography
Survey, with additional data
Coast Guard.

SUPPLEMENTAL
Consult U.S. Coast Guard
supplemental information

Improved charting
subject to shoals

PLANE
(bar)
The New Jersey
ticks at 5,000 foot

Mariner
of the port
navigation
thus:

Temporary
navigation are not
Local Notice to Mariners
During some
periods by ice, or
replaced by other
see U.S. Coast Guard

09' 50' 40' 30' 20' 10' 08' 50' 2 150 000 07'

Published at Washington, D.C.
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY

PRINT-ON-DEMAND CHARTS

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FATHOMS	1
FEET	6
METERS	1 2

14

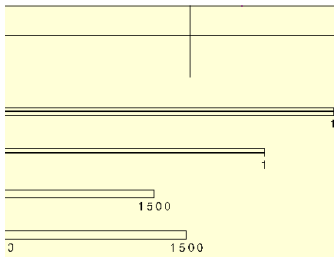


Printed at reduced scale.

SCALE 1:15,000
Nautical Miles

See Note on page 5.





Without changing divider spread, place
in 15 minutes, the speed is 16.0 knots.

TIDAL INFORMATION

(LAT/LONG)	Height referred to datum of soundings (MLLW)		
	Mean Higher High Water	Mean High Water	Mean Low Water
(40°39'N/74°04'W)	5.0	4.7	0.2
(40°41'N/74°08'W)	5.7	5.3	0.2
(40°36'N/74°12'W)	5.6	5.2	0.2
(40°40'N/74°08'W)	5.6	5.2	0.2

Not available datum values for a tide station. Real-time water levels are available on the Internet from <http://tidesandcurrents.noaa.gov>.

HEIGHTS

Feet above Mean High Water.

AUTHORITIES

Surveyed by the National Ocean Service, Coast and Geodetic Survey, and U.S. Coast and Geodetic Survey.

ADDITIONAL INFORMATION

U.S. Coast Pilot 2 for important information.

CAUTION

Channels shown by broken lines are drying, particularly at the edges.

NE COORDINATE GRID

based on NAD 1927.

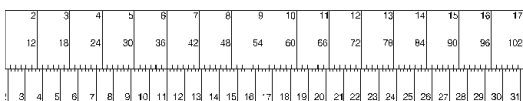
State Grid is indicated by dotted intervals.

CAUTION

Users are warned to stay clear of navigational structures shown.

CAUTION

Changes or defects in aids to navigation are not indicated on this chart. See Mariners' Guide to Navigation for details of Guard Light List.



ARTHUR KILL, KILL VAN KULL, NEWARK BAY, PORT NEWARK AND PORT ELIZABETH CHANNEL DEPTHS TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JUL 2009 AND SURVEYS TO APR 2009						
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)					PROJECT DIMENSIONS	
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)
ARTHUR KILL (A)						
FRESH KILLS REACH	30.3	34.6	35.9	34.0	4-09	500
TREMLEY POINT REACH	30.5	35.6	36.3	29.2	4-09	500
PRALLS ISLAND REACH	31.9	33.6	35.2	27.0	4-09	500
GULFPORT REACH	32.6	36.2	37.0	30.3	2,3,4-09	500-600
ELIZABETHPORT REACH	41.2	43.6	43.7	41.4	2,3-09	600-800
NORTH OF SHOOTERS ISLAND REACH	41.3	42.3	41.2	39.4	2,3-09	600
SOUTH OF SHOOTERS ISLAND REACH	26.5	21.9	21.5	21.1	11-04	400
KILL VAN KULL (A)						
BERGEN POINT WEST REACH (B)	*49.0	*50.6	*50.9	*48.5	2,3-09	800-1150
BERGEN POINT EAST REACH (B)	*49.3	52.7	*51.4	*50.5	2,3-09	800
CONSTABLE HOOK REACH (PARTIAL)	44.0	46.7	46.8	41.1	2,3-09	800-2000
NEWARK BAY						
SOUTH REACH	44.8	46.9	45.7	43.3	2-09	1000-1775
REACH B - MIDDLE REACH	37.7	43.2	36.5	35.4	2-09	800-1700
REACH B1 - MIDDLE REACH	38.3	38.1	34.1	28.2	2-09	800-800
NORTH REACH	13.9	22.1	17.7	6.4	2-09	500-1030
PORT NEWARK						
BRANCH REACH	27.5	34.9	37.1	31.7	3-09	400-1775
PORT ELIZABETH CHANNEL REACH	40.5	41.9	41.4	39.0	2-09	500-800

A. CONTROLLING DEPTHS IN ARTHUR KILL AND KILL VAN KULL ARE REFERENCED FROM SEAWARD WHEN ENTERING FROM LOWER BAY.
B. AN * DENOTES A SHOAL OBSTRUCTION. SPORADIC SHOAL OBSTRUCTIONS EXIST WITHIN THE CHANNEL BUT ARE NOT CHARTED.
C. NUMEROUS WRECKS AND OBSTRUCTIONS WITH MINIMUM DEPTH TO 4 FEET WITHIN CHANNEL LIMITS.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION.

ABBREVIATIONS (For complete list of Symbols and Abbreviations, see Chart No. 1.)

Aids to Navigation (lights are white unless otherwise indicated):

AERO aeronautical	G green	N nun	R TR radio tower
Al alternating	IO interrupted quick	OBSC obscured	Rot rotating
B black	iso isophase	Oc occulting	s seconds
Bn beacon	LT HO lighthouse	Or orange	SEC sector
C can	M nautical mile	Osc oscillating	St M statute miles
DIA diaphone	m minutes	Q quick	VQ very quick
F fixed	MICRO TR microwave tower	R red	W white
Fl flashing	Mer marker	Ra Ref radar reflector	WHIS whistle
	Mo morse code	R Bn radiobeacon	Y yellow

Bottom characteristics:

Blds boulders	Co coral	gy gray	Oys oysters	so soft
bk broken	G gravel	h hard	Rk rock	Sh shells
Cy clay	Grs grass	M mud	S sand	sy sticky

Miscellaneous:

AUTH authorized	Obstr obstruction	PD position doubtful	Subm submerged
ED existence doubtful	PA position approximate	Rep reported	
(Z) Wreck, rock, obstruction, or shoal swept clear to the depth indicated.			
(Z) Rocks that cover and uncover, with heights in feet above datum of soundings.			

NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

New York, NY KWO-35 162.550 MHz

Kill Van Kull and Northern Part of Arthur Kill
SOUNDINGS IN FEET - SCALE 1:15,000

12333

EMERGENCY INFORMATION

VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.

Channel 9 – Communications between boats and ship-to-coast.

Channel 13 – Navigation purposes at bridges, locks, and harbors.

Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other vessels. Contact the other vessel, agree to another channel, and then switch.

Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

Channels 68, 69, 71, 72 & 78A – Recreational boat channels.

Distress Call Procedures

1. Make sure radio is on.
2. Select Channel 16.
3. Press/Hold the transmit button.
4. Clearly say: "MAYDAY, MAYDAY, MAYDAY."
5. Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
6. Release transmit button.
7. Wait for 10 seconds – If no response Repeat MAYDAY Call.

HAVE ALL PERSONS PUT ON LIFE JACKETS !!

Mobile Phones – Call 911 for water rescue.

Coast Guard Group Activities New York – 718-354-4120

Coast Guard Sandy Hook – 732-872-3428

Coast Guard Kings Point – 516-466-7135

New York State Police – 877-672-4911

New Jersey State Police – 973-578-8173

Coast Guard Atlantic Area Cmd – 757-398-6390

NOAA Weather Radio – 162.400 MHz, 162.425 MHz, 162.450 MHz, 162.475 MHz, 162.500 MHz, 162.525 MHz, 162.550 MHz.

Getting and Giving Help – Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.



NOAA CHARTING PUBLICATIONS

Official NOAA Nautical Charts – NOAA surveys and charts the national and territorial waters of the U.S, including the Great Lakes. We produce over 1,000 traditional nautical charts covering 3.4 million square nautical miles. Carriage of official NOAA charts is mandatory on the commercial ships that carry our commerce. They are used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters. NOAA charts are available from official chart agents listed at: www.NauticalCharts.NOAA.gov.

Official Print-on-Demand Nautical Charts – These full-scale NOAA charts are updated weekly by NOAA for all Notice to Mariner corrections. They have additional information added in the margin to supplement the chart. Print-on-Demand charts meet all federal chart carriage regulations for charts and updating. Produced under a public/private partnership between NOAA and OceanGrafix, LLC, suppliers of these premium charts are listed at www.OceanGrafix.com.

Official Electronic Navigational Charts (NOAA ENC[®]) – ENCs are digital files of each chart's features and their attributes for use in computer-based navigation systems. ENCs comply with standards of the International Hydrographic Organization. ENCs and their updates are available for free from NOAA at www.NauticalCharts.NOAA.gov.

Official Raster Navigational Charts (NOAA RNC[™]) – RNCs are geo-referenced digital pictures of NOAA's charts that are suitable for use in computer-based navigation systems. RNCs comply with standards of the International Hydrographic Organization. RNCs and their updates are available for free from NOAA at www.NauticalCharts.NOAA.gov.

Official BookletCharts[™] – BookletCharts[™] are reduced scale NOAA charts organized in page-sized pieces. The "Home Edition" can be downloaded from NOAA for free and printed. The Internet address is www.NauticalCharts.gov/bookletcharts.

Official PocketCharts[™] – PocketCharts[™] are for beginning recreational boaters to use for planning and locating, but not for real navigation. Measuring a convenient 13" by 19", they have a 1/3 scale chart on one side, and safety, boating, and educational information on the reverse. They can be purchased at retail outlets and on the Internet.

Official U.S. Coast Pilot[®] – The Coast Pilots are 9 text volumes containing information important to navigators such as channel descriptions, port facilities, anchorages, bridge and cable clearances, currents, prominent features, weather, dangers, and Federal Regulations. They supplement the charts and are available from NOAA chart agents or may be downloaded for free at www.NauticalCharts.NOAA.gov.

Official On-Line Chart Viewer – All NOAA nautical charts are viewable here on-line using any Internet browser. Each chart is up-to-date with the most recent Notices to Mariners. Use these on-line charts as a ready reference or planning tool. The Internet address is www.NauticalCharts.gov/viewer.

Official Nautical Chart Catalogs – Large format, regional catalogs are available for free from official chart agents. Page size, state catalogs are posted on the Internet and can be printed at home for free. Go to <http://NauticalCharts.NOAA.gov/mcd/ccatalogs.htm>.

Internet Sites: www.NauticalCharts.NOAA.gov, www.NOAA.gov, www.TidesandCurrents.NOAA.gov, www.NOS.NOAA.gov.